

## The Knowledge Bank at The Ohio State University

### Ohio State Engineer

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## Steel and The X-Ray

The X-Ray has come into more extensive use in metallography during the past few years than any other mechanism for examining metal parts, especially welded parts. In 1918 the X-Ray could penetrate about one inch of steel whereas in 1935, with constant improvement of accessories and methods keeping up with the advances in penetrating power, the X-Ray penetrated five inches of steel using 400,000 volts. Beside the improvements in equipment, another factor of importance has helped extend the use of the X-Ray in the steel industry, namely: lower cost due to faster films and more efficient intensifying screens, which in turn reduce the exposure time.

Invaluable in testing airplane parts, heat resisting retorts, boiler drums, unfired pressure vessels, and the examination of steel and castings; the X-Ray has developed into prime importance in the metal industries. One of the most recent uses of the X-Ray in steel was the examination of seventy-five miles of welded pentacocks at Boulder Dam.

—*Metal Progress.*

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Believe it or not but a radio message traveled 15,000 miles to reach its destination not quite five miles away. Americans in Addis Ababa, during the rumpus in that much mispronounced community, radioed to Europe to have the nearby British Embassy send help.

\* \* \*

And speaking of Italy, a marble quarry near Carrara, is the oldest going business in the world. It has been in continuous operation since long before the Christian era.

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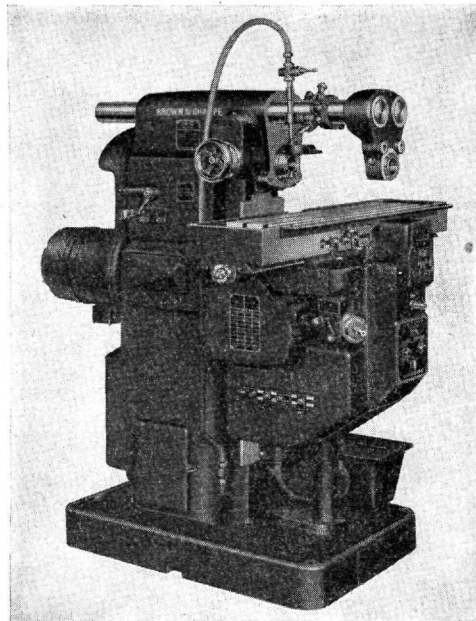
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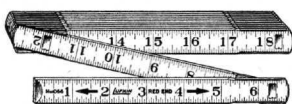
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